ENVIRONMENTAL COMPLIANCE SERVICES, INC.

December 4, 1998
Project Number: 40088.10
Document: Summary.rpt

Mr. Chuck Schwer, Supervisor
Sites Management Section
VT DEC WMD
103 South Main Street/West Office
Waterbury, VT 05671-0404

RE: Site Investigation Report
Country News Distributors, Putney Road, Brattleboro, VT
DEC Site #98-2372

Dear Mr. Schwer:

Enclosed please find the above referenced report for your review. Should you have any questions regarding this information, please feel free to call me at 802-257-1195.

Sincerely,
ENVIRONMENTAL COMPLIANCE SERVICES, Inc.

David C. Balk

David C. Balk, P.G.
Project Manager

enclosure

cc: Stephen Baker, Country News Distributors

588 Silver Street • Agawam, MA 01001 • 413-789-3530 • Fax 413-789-2776
157 Old Guilford Road #6 • Brattleboro, VT 05301 • 802-257-1195 • Fax 802-257-1603

Phase	Type
X Initial Site Investigation ☐ Corrective Action Feasibility Investigation ☐ Corrective Action Plan ☐ Corrective Action Summary Report ☐ Operations and Monitoring Report	☐ Work Scope **X Technical Report** ☐ PCF Reimbursement Request ☐ General Correspondence

Site Investigation Report

Country News Distributors
Putney Road
Brattleboro, Vermont
SMS Site #98-2372

Prepared for:

Country News Distributors
P.O. Box 8127
Putney Road
Brattleboro, Vermont 05304
Contact: Stephen E. Baker, President
Phone: (802) 257-2373

Prepared by:

Environmental Compliance Services, Inc.
157 Old Guilford Road #6
Brattleboro, VT 05301
Contact: David C. Balk, P.G.
Phone: (802) 257-1195

December 4, 1998

Table of Contents

Appendices

1.0 Introduction

On April 22 and April 23, 1998 two 4,000 gallon #2 fuel oil underground storage tanks (USTs) and one 2,000 gallon gasoline UST were removed from the west and east sides of Country News Distributors ("the site"; see site locus map, Appendix A). Soils from the tank excavation were screened with a Photovac Model 2020 photoionization detector (PID) for the presence of Volatile Organic Compound (VOC) concentrations. The levels of contamination ranged from 0 to 900 parts per million (ppm). A tank closure report was submitted to the VT DEC, and resulted in the request for subsurface investigations to assess the extent and degree of petroleum contamination in soil and/or groundwater at the site.

Environmental Compliance Services, Inc. of Brattleboro, VT submitted a work plan for these additional investigations to the VT DEC on behalf of Charlie Miller of Country News Distributors. The work plan included soil boring advancement, groundwater monitoring well installation, groundwater sampling and analysis, and a sensitive receptor survey. It was approved by the Sites Management Section (SMS) on July 21, 1998.

This report documents the work performed by ECS at the site and presents results, conclusions and recommendations.

2.0 Site Description

The subject property exists at an elevation of approximately 320 feet above mean sea level. The Country News Distributors Building is composed of one large warehouse with loading docks. The site is surrounded by industrial developed land. To the north is American Stratford Inc., to the northeast is C.E. Bradley Laboratories, and to the east is Northeast Cooperatives food warehouse. Interstate 91 is located to the south and Route 5 (aka Putney Road) is to the west of the site. Leader Beverage Corporation is located beyond Route 5. The site topography slopes to the southwest, and past reports from neighboring properties indicate groundwater flow to be in the same direction. Drinking water is supplied to the site by a public water supply located approximately ½ mile away. A private drinking water supply is located downgradient of the site by approximately 900 feet.

Observations made during the removal of the fuel oil USTs and gasoline UST in April 1998 indicate that the soils in the tank pit were brown coarse sand and gravel to a depth of 8 feet below ground surface (bgs) with a fine sand to 19 feet bgs. Groundwater was not encountered to a depth of approximately 19 feet bgs.

3.0 Work Performed

3.1 Monitoring Well and Soil Borings

On September 10, 1998, ECS installed five monitoring wells, designated ECS-1, ECS-2, ECS-3, ECS-4, and ECS-5 and drilled one soil boring in the gasoline pump island (SB-1). Monitoring well and soil boring locations are shown on the site plan in Appendix B. ECS-1, -2, and -3 are 35 feet deep, and ECS-4 and -5 are 20 feet deep. The wells were constructed of 2 inch diameter schedule 40 PVC slotted screen (size 10) with flush mounted road boxes. During the installation of the monitoring wells approximately 1/2 cubic yard of drill cuttings was polyencapsulated southwest of the Country News Distributors building. During drilling, split spoon samples were obtained at five foot intervals and screened for VOCs with a Photovac Model 2020 PID, using bag headspace protocol. VOCs were detected during drilling of the three monitoring wells on the west side and one of the two monitoring wells on the east side of the site. Soil from the boring advanced in the pump island did not have significant levels of VOCs; therefore, no monitoring well was installed in the boring. Soil boring/monitoring well construction logs are presented in Appendix C.

3.2 Groundwater Table and Flow Direction

Monitoring wells ECS-4 and ECS-5, installed upgradient of and in the gasoline tank grave, contained sufficient water for sampling. However, no groundwater was evident in the downgradient monitoring wells ECS-1, ECS-2, and ECS-3. General topography and soil types indicate groundwater flow at the site is to the south/southwest.

3.3 Groundwater Sampling and Analysis

Groundwater from monitoring wells ECS-4 and ECS-5 was sampled on September 17, 1998, by ECS personnel using disposable plastic bailers. A duplicate groundwater sample from ECS-5 was obtained for quality control purposes. All samples were stored on ice immediately upon collection, and submitted to Spectrum Analytical, Inc. in Agawam, Massachusetts for analysis of VOCs plus MTBE by EPA Method 8260 and Total Petroleum Hydrocarbons (TPH) by EPA Method 8100M. The laboratory data sheets and chain of custody record are presented in Appendix D. Results are summarized in Table 1.

Table 1. Results of Laboratory Analysis of Groundwater Samples

Compound	ECS-4	ECS-5	Duplicate	PGQS
Benzene	ND	**590**	**520**	5
n-Butylbenzene	ND	2.6	ND	-
Ethylbenzene	ND	72	62	700
Napthalene	ND	3.6	ND	20
n-Propylbenzene	ND	2.7	ND	-
Toluene	ND	**1,200**	**1,000**	1,000
1,2,4-Trimethylbenzene	ND	**40**	**35**	5
1,3,5-Trimethylbenzene	ND	**17**	14	4
Xylenes	ND	530	480	10,000

Table 1. Results of Laboratory Analysis of Groundwater Samples				
Total BTEX	ND	2,392	2,062	-
MTBE	ND	160	150	40
TPH	ND	0.6	0.7	-

ND = not detected
PGQS = Primary Groundwater Quality Standard
Boldface type indicates PGQS exceedances

4.0 Risk Evaluation

4.1 Potential Sources

Low levels of soil contamination were detected at the soil borings advanced on the west side of the site building, in and around the former #2 fuel oil tank graves. The soil contamination ranged from 0 ppm to 41 ppm by the PID; however, insufficient water was available for groundwater sampling. During the removal of the two 4,000 gallon #2 fuel oil USTs in April of 1998, soil contamination was observed beneath the two tanks. The release was possibly due to over fills of the USTs, which have been removed from the site.

VOC Levels ranging from 7.8 ppm to 1,459 ppm were detected in the soil boring for monitoring well ECS-5, installed on the east side of the site building in the former gasoline tank grave. Groundwater samples from ECS- 5 also contained petroleum compounds. The upgradient monitoring well (ECS-4) indicated no contamination during well installation or subsequent groundwater sampling. The contamination around the gasoline UST may have been the result of overfills and/or piping associated with the pump (i.e. check valve at the tank). No significant VOC levels were detected in a soil boring in the former pump island.

4.2 Potential Receptors

The potential sensitive receptors of most immediate concern are the employees of Country News Distributors. The closest downgradient business, is approximately 900 feet away and is presently listed on the Vermont Hazardous Sites List for two separate petroleum releases. Leader Beverage Corporation owns the closest private drinking water well which is presently being monitored for VOCs via EPA Method 8021. No contaminants tested for as part of that monitoring have ever been detected in the water supply. There are no residences or other water supplies known to be located within a ½ mile radius of the site. Air in the site building was screened for VOCs with a PID. No VOCs were detected in the site building office and warehouse area.

An unnamed stream, located approximately 1,900 feet downgradient and to the southwest, is the nearest potential sensitive environmental receptor.

5.0 Conclusions

ECS presents the following conclusions based on the information obtained at the site to date:

- groundwater flow direction at the site can be interpreted to be to the south-southwest;
- PGQS for benzene, toluene, the trimethylbenzenes and MTBE were exceeded in groundwater from a monitoring well installed in the former location of the gasoline UST on the east side of the site building;
- low levels of VOC contamination were detected in the soil during the installation of monitoring wells in and around the # 2 fuel oil tank graves on the west side of the site building;
- no VOCs were detected in the indoor air of the site building, the nearest downgradient structure from the gasoline tank grave.

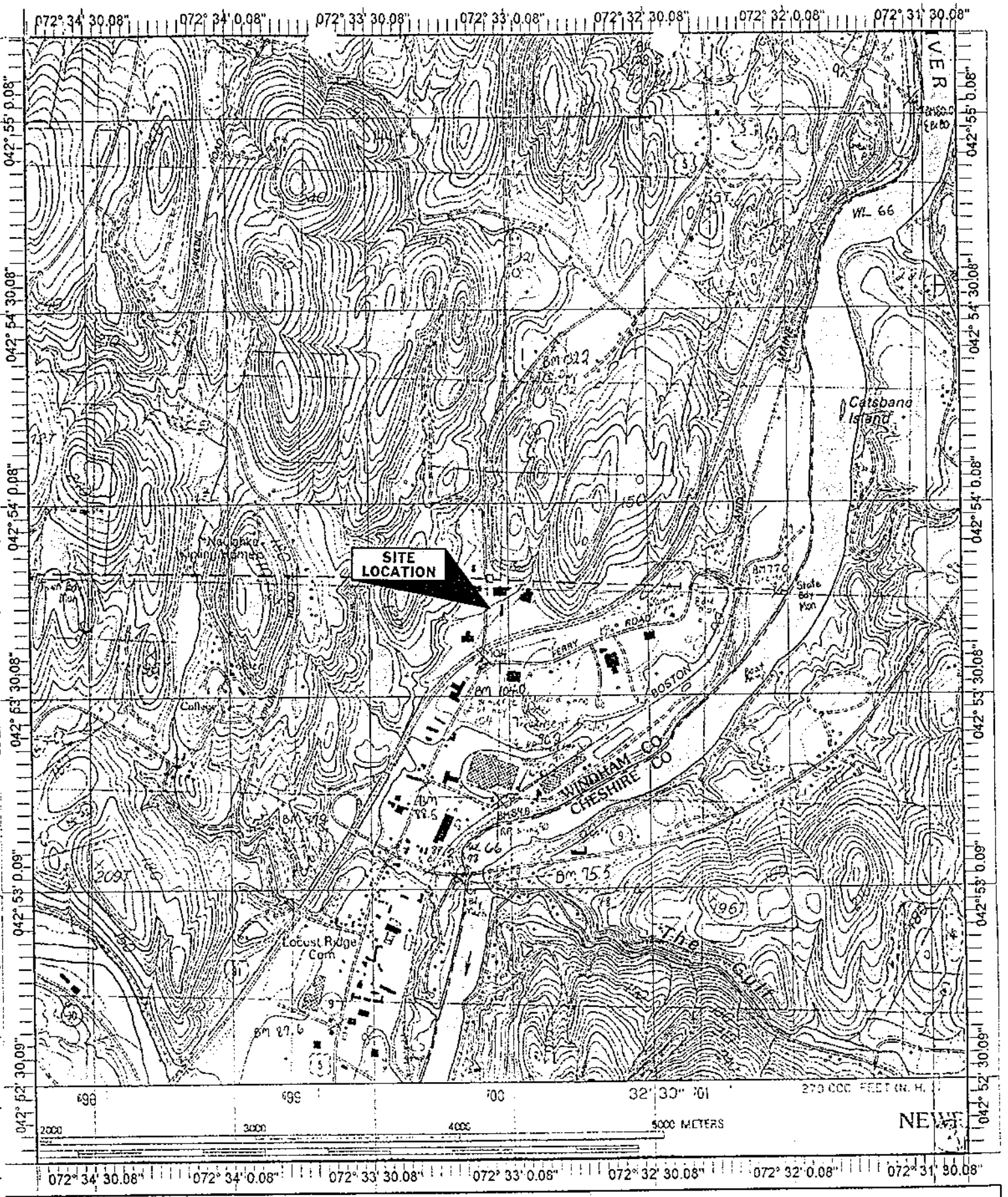
6.0 Recommendations

ECS recommends that this site be sampled in the spring time when groundwater elevations are highest in the monitoring wells. Additional data from downgradient wells would allow for accurate analysis of potential impact of the release to groundwater.

\40088.10\Summary.rpt.wpd

Appendix A

Site Locus Map

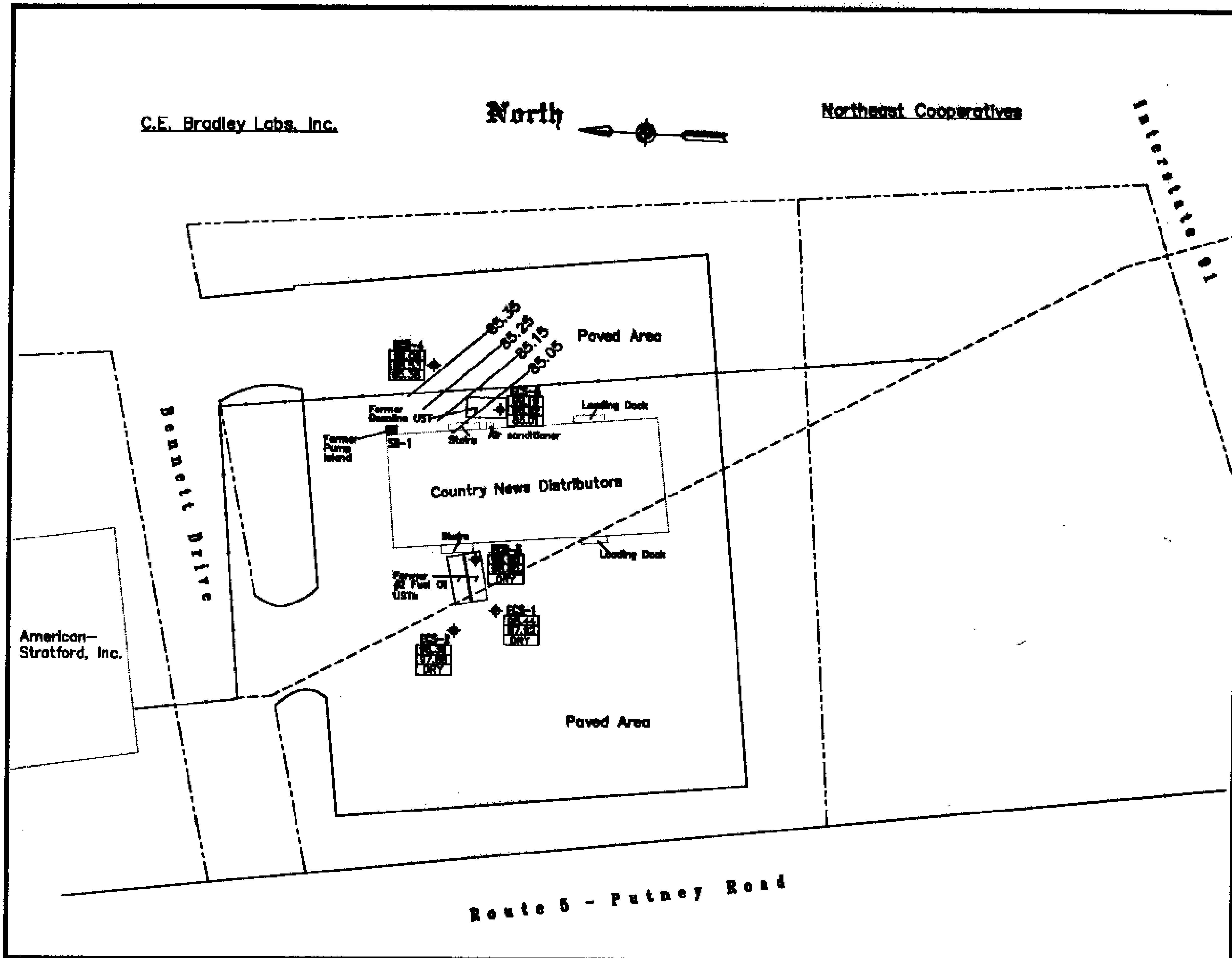


Name: NEWFANE
Date: 4/27/98
Scale: 1 inch equals 2000 feet

Location: 042° 53' 45.3" N 072° 33' 02.8" W
Caption: Site Locus Map
Country News Distributors
Putney Rd., Brattleboro, VT

Appendix B

Site Plan



Legend

— - — - —	Approximate Property Line
— — — —	Approximate location of former 6" water main
—— - ——	Approximate location of existing 8" water main
————	Groundwater Contours in ug/L
◆	Monitoring Well
ECS-1	Monitoring Well Identification
[box]	Rim Elevation PVC Elevation Groundwater Elevation
▭	Former USTs
●	Soil Boring
SB-1	Soil Boring Identification

General Notes:

Site Plan prepared from information obtained from the Brattleboro Assessors Office and and a site visit by ECS, Inc. personnel.

All locations, dimensions of the site features, and property lines are approximate. This plan should not be used for construction or land conveyance purposes.

Vertical and horizontal location of monitoring wells and selected site features determined by a site survey conducted by ECS, Inc. personnel.

Groundwater contours are based on measurements made on 9/17/98. Fluctuations in the level of groundwater may occur due to factors not accounted for at the time measurements were made.

Groundwater contours and flow directions assumed homogeneous, isotropic aquifer conditions, and horizontal flow.

Groundwater contours are interpolated between data points and inferred in other areas.

ENVIRONMENTAL COMPLIANCE SERVICES, INC.
[illegible]

Country News Distributors
Putney Road
Brattleboro, VT

Site Plan with Groundwater Contours

Stephen Baker, President

Drawn by	Designed by	Checked by	Approved by
CS	CS	DCB	DCB
Scale	Date	Job No.	Figure No.
1" = 50'	Dec. [illegible]	[illegible].10	2

Appendix C

Soil Boring/Monitoring Well Construction Logs

ENVIRONMENTAL COMPLIANCE SERVICES, INC.

SOIL BORING/MONITORING WELL LOG

Project #: 40088 Date: 9/10/98
Project Name: Country News Distributors
Location: Brattleboro, VT
Driller: ECS
ECS Personnel: JCP
Boring/Well #: ECS-1 Sheet 1 of 1

SITE LOCUS
COUNTRY NEWS
FORMER #2 FUEL OIL UST'S
ECS-1

Depth	Blow Counts 0-6	6-12	12-18	18-24	Rec. (in.)	OVM (ppm)	Soil Characterization	As Built Diagram
0-2	15	22	32	22	8"	0.0	Fill and blacktop dry no odors	
5-7	7	7	9	13	10"	0.0	very fine sand green/gray dry no odors	
10-12	6	9	9	13	15"	0.0	very fine sand and clay light gray no odors dry	
15-17	5	8	8	11	20"	7.3	very fine sand and clay light gray no odors moist to dry	
20-22	7	9	10	12	20"	25.2	slight odor moist to dry fine to medium sand salt and pepper in color	
25-27	7	8	9	11	24"	12.2	slight odor moist to dry fine to medium sand salt and pepper in color	
30-32	7	8	5	5	24"	34.8	Fine to medium sand some clay moist	

Drilling Method: HSA
Total Well Depth: 35'
Groundwater Depth:
PVC Elevation:

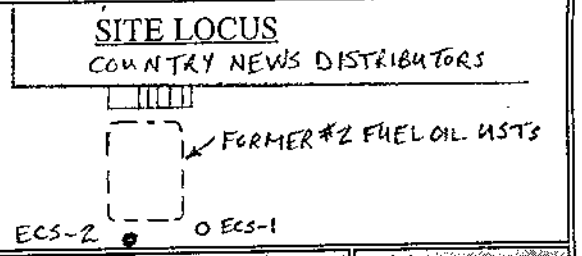
Screen Diameter: 2" Length: 10'
Riser Diameter: 2" Length: 25'
Slot Size: 0.010
Ground Elevation:

Notes:
1. Split spoon soil samples are screened for organic vapors via headspace method using a Photovac 2020 Photoionization detector calibrated to 100 ppm isobutylene and referenced to benzene.
2. ND indicates nondetectable contaminant concentrations as read by the OVM.
3. Samples are collected using a Split Spoon Sampler unless otherwise indicated.
4. Split Spoon Sampler has a 2" diameter and is driven using a 140 lb. hammer falling 30 inches.
5. HSA = Hollow Stem Auger, AR = Air Rotary

ENVIRONMENTAL COMPLIANCE SERVICES, INC.

SOIL BORING/MONITORING WELL LOG

Project #: 40088 Date: 9/10/98
Project Name: Country News Distributors
Location: Brattleboro, VT
Driller: ECS
ECS Personnel: JCP
Boring/Well #: ECS-2 Sheet 1 of 1



Depth	Blow Counts 0-6	6-12	12-18	18-24	Rec. (in.)	OVM (ppm)	Soil Characterization	As Built Diagram
0-2						0.0	Fill and blacktop dry no odors	
5-7	7	8	9	11	18"	0.0	brown fine sand dry no odors	
10-12	8	8	8	8	24"	0.0	brown fine sand dry no odors	
12-14	5	5	7	7	24"	0.0	brown fine sand dry no odors	
14-16	6	7	8	9	24"	0.0	14-16 - varied clay and fine sand 15-16 - light salt/pepper sand fine to medium grain dry slight odors	
16-18	4	5	5	8	24"	0.0	salt/pepper sand with iron bands dry	
20-22	9	9	11	11	18"	16.6	salt and pepper sand dry no odor	
30-32	5	5	7	8	24"	6.8	moist to wet dark medium to course grain sand with clay (1-2") lenses no odors	
35-37	5	5	9	13	24"	9.1	wet clay no odors	

Drilling Method: HSA
Total Well Depth: 35'
Groundwater Depth:
PVC Elevation:

Screen Diameter: 2" Length: 10'
Riser Diameter: 2" Length: 25'
Slot Size: 0.010
Ground Elevation:

Notes:
1. Split spoon soil samples are screened for organic vapors via headspace method using a Photovac 2020 Photoionization detector calibrated to 100 ppm isobutylene and referenced to benzene.
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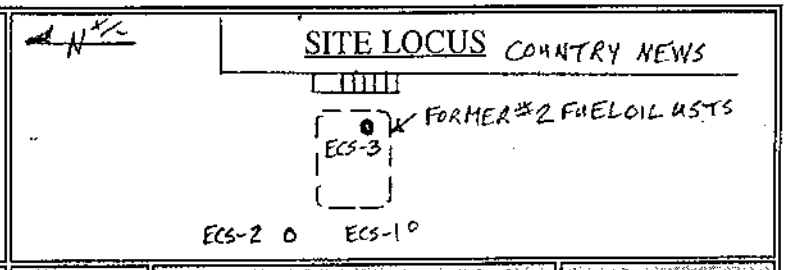
5. HSA = Hollow Stem Auger, AR = Air Rotary

ENVIRONMENTAL COMPLIANCE SERVICES, INC.

SOIL BORING/MONITORING WELL LOG

Project #: 40088 Date: 9/10/98
Project Name: Country News Distributors
Location: Brattleboro, VT
Driller: ECS
ECS Personnel: JCP
Boring/Well #: ECS-3 Sheet 1 of 1



Depth	Blow Counts 0-6	6-12	12-18	18-24	Rec. (in.)	OVM (ppm)	Soil Characterization	As Built Diagram
0-2						0.0	gray medium sand no odors dry	
5-7	2	2	3	4	10"	0.0	fine brown sand no odors dry	
10-12	2	2	4	5	24"	0.0	fine to medium sand banded with clay dry no odors	
15-17	3	10	14	15	15"	1.5	fine to medium sand moist clay banded between sand dry no odors	
20-22	5	8	9	10	20"	41.3	medium gray sand slight odor dry no odor	
25-27	6	6	9	11	24"	24.5	salt and pepper sand dry slight odor	
30-32	5	10	12	15	24"	27.6	12"- gray med dry sand 12" - gray moist clay - odor	
35-37	8	6	5	6	24"	21.1	4"- gray sand 20"- gray wet clay	

Drilling Method: HSA
Total Well Depth: 35'
Groundwater Depth:
PVC Elevation:

Screen Diameter: 2" Length: 10'
Riser Diameter: 2" Length: 25'
Slot Size: 0.010
Ground Elevation:

Notes:
1. Split spoon soil samples are screened for organic vapors via headspace method using a Photovac 2020 Photoionization detector calibrated to 100 ppm isobutylene and referenced to benzene.
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3. Samples are collected using a Split Spoon Sampler unless otherwise indicated.
4. Split Spoon Sampler has a 2" diameter and is driven using a 140 lb. hammer falling 30 inches.
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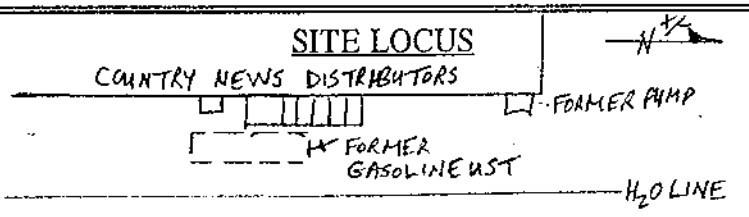
ENVIRONMENTAL COMPLIANCE SERVICES, INC.

SOIL BORING/MONITORING WELL LOG

Project #: 40088 Date: 9/10/98
Project Name: Country News Distributors
Location: Brattleboro, VT
Driller: ECS
ECS Personnel: JCP
Boring/Well #: ECS-4 Sheet 1 of 1

SITE LOCUS



Depth	Blow Counts 0-6	6-12	12-18	18-24	Rec. (in.)	OVM (ppm)	Soil Characterization	As Built Diagram
0-2						0.0	brown medium sand dry no odors	
5-7	3	3	5	7	24"	0.0	fine sand green-gray no odors dry	
10-12	5	6	5	7	24"	0.0	brown fine sand moist no odors	
15-17	4	3	3	4	24"	0.0	brown fine sand wet - GW- no odors	
20-22	3	6	4	5	24"	0.0	GW-wet brown fine sand no odors	
25-27								
30-32								
35-37								

Drilling Method: HSA
Total Well Depth: 20'
Groundwater Depth:
PVC Elevation:

Screen Diameter: 2" Length: 10'
Riser Diameter: 2" Length: 10'
Slot Size: 0.010
Ground Elevation:

Notes:
1. Split spoon soil samples are screened for organic vapors via headspace method using a Photovac 2020 Photoionization detector calibrated to 100 ppm isobutylene and referenced to benzene.
2. ND indicates nondetectable contaminant concentrations as read by the OVM.
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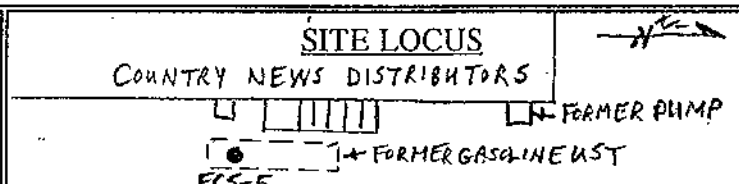
ENVIRONMENTAL COMPLIANCE SERVICES, INC.

SOIL BORING/MONITORING WELL LOG

Project #: 40088 Date: 9/10/98
Project Name: Country News Distributors
Location: Brattleboro, VT
Driller: ECS
ECS Personnel: JCP
Boring/Well #: ECS-5 Sheet 1 of 1

SITE LOCUS



Depth	Blow Counts 0-6	6-12	12-18	18-24	Rec. (in.)	OVM (ppm)	Soil Characterization	As Built Diagram
0-2						1459	brown medium sand dry	
5-7	2	9	5	7	6"	1152	gray clay and medium sand dry strong odor	
7-9	2	2	3	5	6"	1165	brown fine sand strong odor dry	
9-11	4	4	5	4	24"	933	brown fine sand strong odor dry	
11-13	6	7	7	7	24"	170	wet GW brown fine sand/silt strong odor	
13-15	6	5	7	7	24"	15.6	wet GW brown fine sand/silt strong odor	
20-22	4	7	8	4	24"	7.8	brown medium sand/silt odor wet GW	

Drilling Method: HSA
Total Well Depth: 20'
Groundwater Depth:
PVC Elevation:

Screen Diameter: 2" Length: 10'
Riser Diameter: 2" Length: 10'
Slot Size: 0.010
Ground Elevation:

Notes:
1. Split spoon soil samples are screened for organic vapors via headspace method using a Photovac 2020 Photoionization detector calibrated to 100 ppm isobutylene and referenced to benzene.
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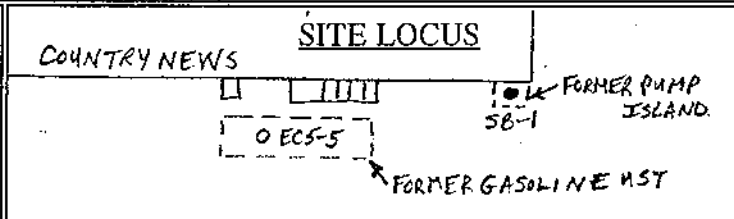
ENVIRONMENTAL COMPLIANCE SERVICES, INC.

SOIL BORING/MONITORING WELL LOG

Project #: 40088 Date: 9/10/98
Project Name: Country News Distributors
Location: Brattleboro, VT
Driller: ECS
ECS Personnel: JCP
Boring/Well #: SB-1 Sheet 1 of 1

SITE LOCUS



Depth	Blow Counts 0-6	6-12	12-18	18-24	Rec. (in.)	OVM (ppm)	Soil Characterization	As Built Diagram
0-2						0.0	fill brown sand dry no odors	
5-7	4	9	9	9	10"	1.6	fill trace cobbles brown fine sand dry no odors	
10-12	4	5	9	9		0.0	moist to wet brown fine very fine sand/clay no odors	
15-17	2	3	6	3		0.0	GW fine brown sand wet no odors	
20-22	2	3	4	2		0.0	GW fine brown sand and silt wet no odors	
25-27							NO MONITORING WELL INSTALLED - SOIL BORING ONLY	
30-32								
35-37								

Drilling Method: HSA
Total Well Depth: _____
Groundwater Depth: _____
PVC Elevation: _____

Screen Diameter: _____ Length: _____
Riser Diameter: _____ Length: _____
Slot Size: _____
Ground Elevation: _____

Notes:
1. Split spoon soil samples are screened for organic vapors via headspace method using a Photovac 2020 Photoionization detector calibrated to 100 ppm isobutylene and referenced to benzene.
2. ND indicates nondetectable contaminant concentrations as read by the OVM.
3. Samples are collected using a Split Spoon Sampler unless otherwise indicated.
4. Split Spoon Sampler has a 2" diameter and is driven using a 140 lb. hammer falling 30 inches.
5. HSA = Hollow Stem Auger, AR = Air Rotary

NO MONITORING WELL INSTALLED
SOIL BORING ONLY

Appendix D

Laboratory Data Sheets and Chain of Custody Record

SPECTRUM ANALYTICAL, INC.

Massachusetts Certification M-MA 138
Connecticut Approval # PH 0777
Rhode Island # 98 & Maine # n/a
New Hampshire ID # 2538
New York ID #11393
Florida HRS87448

ECS, Inc.
157 Old Guilford Road, #6
Brattleboro, VT 05301

November 30, 1998

Attn: David Balk

Client Project No.: **40088** Location: **Country News Dist-Brattleboro**

Lab ID No.	Client ID	Analysis Requested
AB18566	ECS-4	EPA Method 8260 TPH by GC
AB18567	ECS-5	EPA Method 8260 TPH by GC
AB18568	ECS-DUP	EPA Method 8260 TPH by GC
AB18569	ECS-TRIP	EPA Method 8260

Authorized by

Hanibal Tayeh
President/Laboratory Director

SPECTRUM ANALYTICAL, INC.

Laboratory Report

Client ID: **ECS-4**
Lab ID No: **AB18566**

Location: **Country News Dist-Brattleboro**
Client Job No.: **40088**

Matrix: **Aqueous**
Sampled on09/17/98 by ECS
Received on 09/17/98 by DDR
QC and Data Review by AM

Preservative: Refrigeration, HCl
Container : 2 VOA Vials
Condition of Sample as Received: Satisfactory
Delivered by: Courier

Volatile Organics

EPA Method 8260

Parameter for AB18566	Result (ug/L)	MDL	Analyzed	Analyst
Benzene	Not detected	1.0	10/01/98	CH
Bromobenzene	Not detected	1.0	10/01/98	CH
Bromochloromethane	Not detected	1.0	10/01/98	CH
Bromodichloromethane	Not detected	1.0	10/01/98	CH
Bromoform	Not detected	1.0	10/01/98	CH
Bromomethane	Not detected	1.0	10/01/98	CH
n-Butylbenzene	Not detected	1.0	10/01/98	CH
sec-Butylbenzene	Not detected	1.0	10/01/98	CH
tert-Butylbenzene	Not detected	1.0	10/01/98	CH
Carbon tetrachloride	Not detected	1.0	10/01/98	CH
Chlorobenzene	Not detected	1.0	10/01/98	CH
Chloroethane	Not detected	1.0	10/01/98	CH
Chloroform	Not detected	1.0	10/01/98	CH
Chloromethane	Not detected	1.0	10/01/98	CH
2-Chlorotoluene	Not detected	1.0	10/01/98	CH
4-Chlorotoluene	Not detected	1.0	10/01/98	CH
1,2-Dibromo-3-chloropropane	Not detected	1.0	10/01/98	CH
Dibromochloromethane	Not detected	1.0	10/01/98	CH
1,2-Dibromoethane (EDB)	Not detected	1.0	10/01/98	CH
Dibromomethane	Not detected	1.0	10/01/98	CH
1,2-Dichlorobenzene	Not detected	1.0	10/01/98	CH
1,3-Dichlorobenzene	Not detected	1.0	10/01/98	CH
1,4-Dichlorobenzene	Not detected	1.0	10/01/98	CH
Dichlorodifluoromethane	Not detected	1.0	10/01/98	CH
1,1-Dichloroethane	Not detected	1.0	10/01/98	CH
1,2-Dichloroethane	Not detected	1.0	10/01/98	CH
1,1-Dichloroethene	Not detected	1.0	10/01/98	CH
cis-1,2-Dichloroethene	Not detected	1.0	10/01/98	CH
trans-1,2-Dichloroethene	Not detected	1.0	10/01/98	CH
1,2-Dichloropropane	Not detected	1.0	10/01/98	CH
1,3-Dichloropropane	Not detected	1.0	10/01/98	CH
2,2-Dichloropropane	Not detected	1.0	10/01/98	CH
1,1-Dichloropropene	Not detected	1.0	10/01/98	CH
cis-1,3-Dichloropropene	Not detected	1.0	10/01/98	CH

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Volatile Organics
EPA Method 8260

Parameter for AB18566	Result (ug/L)	MDL	Analyzed	Analyst
trans-1,3-Dichloropropene	Not detected	1.0	10/01/98	CH
Ethylbenzene	Not detected	1.0	10/01/98	CH
Hexachlorobutadiene	Not detected	1.0	10/01/98	CH
Isopropylbenzene	Not detected	1.0	10/01/98	CH
4-Isopropyltoluene	Not detected	1.0	10/01/98	CH
Methylene chloride	Not detected	1.0	10/01/98	CH
Naphthalene	Not detected	1.0	10/01/98	CH
n-Propylbenzene	Not detected	1.0	10/01/98	CH
Styrene	Not detected	1.0	10/01/98	CH
1,1,1,2-Tetrachloroethane	Not detected	1.0	10/01/98	CH
1,1,2,2-Tetrachloroethane	Not detected	1.0	10/01/98	CH
Tetrachloroethene	Not detected	1.0	10/01/98	CH
Toluene	Not detected	1.0	10/01/98	CH
1,2,3-Trichlorobenzene	Not detected	1.0	10/01/98	CH
1,2,4-Trichlorobenzene	Not detected	1.0	10/01/98	CH
1,1,1-Trichloroethane	Not detected	1.0	10/01/98	CH
1,1,2-Trichloroethane	Not detected	1.0	10/01/98	CH
Trichloroethene	Not detected	1.0	10/01/98	CH
Trichlorofluoromethane	Not detected	1.0	10/01/98	CH
1,2,3-Trichloropropane	Not detected	1.0	10/01/98	CH
1,2,4-Trimethylbenzene	Not detected	1.0	10/01/98	CH
1,3,5-Trimethylbenzene	Not detected	1.0	10/01/98	CH
m,p-Xylenes	Not detected	2.0	10/01/98	CH
o-Xylene	Not detected	1.0	10/01/98	CH
Vinyl chloride	Not detected	1.0	10/01/98	CH
Methyl-t-butyl ether	Not detected	1.0	10/01/98	CH
BFB Surrogate Recovery (%)	109		10/01/98	CH
p-DFB Surrogate Recovery (%)	91		10/01/98	CH
CLB-d5 Surrogate Recovery (%)	97		10/01/98	CH

SPECTRUM ANALYTICAL, INC.

Laboratory Report

Client ID: **ECS-4**
Lab ID No.: **AB18566**

Location: **Country News Dist-Brattleboro**
Client Job No.: **40088**

Matrix: Aqueous
Collected: 09/17/98 by ECS
Received on 09/17/98 by DDR
QC and Data Review by AM

Preservative: Refrigeration
Container: 1 Amber Glass Liter
Condition of Sample as Received: Satisfactory
Delivered by: Courier

Total Hydrocarbons by GC

Modified EPA Method 8100

Parameter	Result (mg/L)	MDL	Extracted	Analyzed	Analyst
Total Hydrocarbons (GC)	Not detected		09/23/98	09/24/98	ATP
Fingerprint based quantification:					
Gasoline	Not detected	0.2	09/23/98	09/24/98	ATP
Fuel Oil #2	Not detected	0.4	09/23/98	09/24/98	ATP
Fuel Oil #4	Not detected	0.7	09/23/98	09/24/98	ATP
Fuel Oil #6	Not detected	0.7	09/23/98	09/24/98	ATP
Motor Oil	Not detected	0.7	09/23/98	09/24/98	ATP
Ligroin	Not detected	0.4	09/23/98	09/24/98	ATP
Aviation Fuel	Not detected	0.4	09/23/98	09/24/98	ATP
Other Oil	Not detected	0.7	09/23/98	09/24/98	ATP
Unidentified	Not detected		09/23/98	09/24/98	ATP

Petroleum identification is determined by comparing the GC fingerprint obtained from the sample with a library of GC fingerprints obtained from petroleum products. Possible match categories are as follows;

Gasoline - includes regular, unleaded, premium, etc.
Fuel Oil #2 - includes home heating oil, #2 fuel oil and diesel.
Fuel Oil #4 - Includes #4 Fuel Oil.
Fuel Oil #6 - includes #6 oil and bunker "C" oil.
Motor Oil - includes virgin and waste automobile.
Ligroin - includes mineral spirits, petroleum naphtha, vm&p naphtha.
Aviation Fuels - includes Kerosene, Jet A and JP-4.
Other Oil - includes lubricating and cutting oil and silicon oil.

Factors such as microbial degradation, weathering and solubility generally prevent specific identification within a petroleum category. A finding of "unidentified" means that the sample fingerprint was characteristic of a petroleum product, but could not be matched to a fingerprint in the library.

After fingerprint identification, the amount present in the sample is quantified using a calibration curve prepared from a petroleum product of the same category as the identified petroleum. Unidentified petroleum is quantified using a petroleum calibration that approximates the distribution of compounds in the sample. A * in the results column indicates the petroleum calibration used to quantify unidentified samples.

SPECTRUM ANALYTICAL, INC.

Laboratory Report

Client ID: **ECS-5**
Lab ID No: **AB18567**

Location: **Country News Dist-Brattleboro**
Client Job No.: **40088**

Matrix: **Aqueous**
Sampled on 09/17/98 by ECS
Received on 09/17/98 by DDR
QC and Data Review by AM

Preservative: Refrigeration, HCl
Container : 2 VOA Vials
Condition of Sample as Received: Satisfactory
Delivered by: Courier

Volatile Organics

EPA Method 8260

Parameter for AB18567	Result (ug/L)	MDL	Analyzed	Analyst
Benzene	590	2.5	10/01/98	CH
Bromobenzene	Not detected	2.5	10/01/98	CH
Bromochloromethane	Not detected	2.5	10/01/98	CH
Bromodichloromethane	Not detected	2.5	10/01/98	CH
Bromoform	Not detected	2.5	10/01/98	CH
Bromomethane	Not detected	2.5	10/01/98	CH
n-Butylbenzene	2.6	2.5	10/01/98	CH
sec-Butylbenzene	Not detected	2.5	10/01/98	CH
tert-Butylbenzene	Not detected	2.5	10/01/98	CH
Carbon tetrachloride	Not detected	2.5	10/01/98	CH
Chlorobenzene	Not detected	2.5	10/01/98	CH
Chloroethane	Not detected	2.5	10/01/98	CH
Chloroform	Not detected	2.5	10/01/98	CH
Chloromethane	Not detected	2.5	10/01/98	CH
2-Chlorotoluene	Not detected	2.5	10/01/98	CH
4-Chlorotoluene	Not detected	2.5	10/01/98	CH
1,2-Dibromo-3-chloropropane	Not detected	2.5	10/01/98	CH
Dibromochloromethane	Not detected	2.5	10/01/98	CH
1,2-Dibromoethane (EDB)	Not detected	2.5	10/01/98	CH
Dibromomethane	Not detected	2.5	10/01/98	CH
1,2-Dichlorobenzene	Not detected	2.5	10/01/98	CH
1,3-Dichlorobenzene	Not detected	2.5	10/01/98	CH
1,4-Dichlorobenzene	Not detected	2.5	10/01/98	CH
Dichlorodifluoromethane	Not detected	2.5	10/01/98	CH
1,1-Dichloroethane	Not detected	2.5	10/01/98	CH
1,2-Dichloroethane	Not detected	2.5	10/01/98	CH
1,1-Dichloroethene	Not detected	2.5	10/01/98	CH
cis-1,2-Dichloroethene	Not detected	2.5	10/01/98	CH
trans-1,2-Dichloroethene	Not detected	2.5	10/01/98	CH
1,2-Dichloropropane	Not detected	2.5	10/01/98	CH
1,3-Dichloropropane	Not detected	2.5	10/01/98	CH
2,2-Dichloropropane	Not detected	2.5	10/01/98	CH
1,1-Dichloropropene	Not detected	2.5	10/01/98	CH
cis-1,3-Dichloropropene	Not detected	2.5	10/01/98	CH

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Volatile Organics
EPA Method 8260

Parameter for AB18567	Result (ug/L)	MDL	Analyzed	Analyst
trans-1,3-Dichloropropene	Not detected	2.5	10/01/98	CH
Ethylbenzene	72	2.5	10/01/98	CH
Hexachlorobutadiene	Not detected	2.5	10/01/98	CH
Isopropylbenzene	Not detected	2.5	10/01/98	CH
4-Isopropyltoluene	Not detected	2.5	10/01/98	CH
Methylene chloride	Not detected	2.5	10/01/98	CH
Naphthalene	3.6	2.5	10/01/98	CH
n-Propylbenzene	2.7	2.5	10/01/98	CH
Styrene	Not detected	2.5	10/01/98	CH
1,1,1,2-Tetrachloroethane	Not detected	2.5	10/01/98	CH
1,1,2,2-Tetrachloroethane	Not detected	2.5	10/01/98	CH
Tetrachloroethene	Not detected	2.5	10/01/98	CH
Toluene	1,200	2.5	10/01/98	CH
1,2,3-Trichlorobenzene	Not detected	2.5	10/01/98	CH
1,2,4-Trichlorobenzene	Not detected	2.5	10/01/98	CH
1,1,1-Trichloroethane	Not detected	2.5	10/01/98	CH
1,1,2-Trichloroethane	Not detected	2.5	10/01/98	CH
Trichloroethene	Not detected	2.5	10/01/98	CH
Trichlorofluoromethane	Not detected	2.5	10/01/98	CH
1,2,3-Trichloropropane	Not detected	2.5	10/01/98	CH
1,2,4-Trimethylbenzene	40	2.5	10/01/98	CH
1,3,5-Trimethylbenzene	17	2.5	10/01/98	CH
m,p-Xylenes	360	5.0	10/01/98	CH
o-Xylene	170	2.5	10/01/98	CH
Vinyl chloride	Not detected	2.5	10/01/98	CH
Methyl-t-butyl ether	160	2.5	10/01/98	CH
BFB Surrogate Recovery (%)	106		10/01/98	CH
p-DFB Surrogate Recovery (%)	91		10/01/98	CH
CLB-d5 Surrogate Recovery (%)	96		10/01/98	CH

SPECTRUM ANALYTICAL, INC.

Laboratory Report

Client ID: **ECS-5**
Lab ID No.: **AB18567**

Location: **Country News Dist-Brattleboro**
Client Job No.: **40088**

Matrix: Aqueous
Collected: 09/17/98 by ECS
Received on 09/17/98 by DDR
QC and Data Review by AM

Preservative: Refrigeration
Container: 1 Amber Glass Liter
Condition of Sample as Received: Satisfactory
Delivered by: Courier

Total Hydrocarbons by GC

Modified EPA Method 8100

Parameter	Result (mg/L)	MDL	Extracted	Analyzed	Analyst
Total Hydrocarbons (GC)	0.6		09/23/98	09/24/98	ATP
Fingerprint based quantification:					
Gasoline	**	0.2	09/23/98	09/24/98	ATP
Fuel Oil #2	*	0.4	09/23/98	09/24/98	ATP
Fuel Oil #4	Not detected	0.7	09/23/98	09/24/98	ATP
Fuel Oil #6	Not detected	0.7	09/23/98	09/24/98	ATP
Motor Oil	Not detected	0.7	09/23/98	09/24/98	ATP
Ligroin	Not detected	0.4	09/23/98	09/24/98	ATP
Aviation Fuel	Not detected	0.4	09/23/98	09/24/98	ATP
Other Oil	Not detected	0.7	09/23/98	09/24/98	ATP
Unidentified	0.6		09/23/98	09/24/98	ATP

Petroleum identification is determined by comparing the GC fingerprint obtained from the sample with a library of GC fingerprints obtained from petroleum products. Possible match categories are as follows;

Gasoline - includes regular, unleaded, premium, etc.
Fuel Oil #2 - includes home heating oil, #2 fuel oil and diesel.
Fuel Oil #4 - Includes #4 Fuel Oil.
Fuel Oil #6 - includes #6 oil and bunker "C" oil.
Motor Oil - includes virgin and waste automobile.
Ligroin - includes mineral spirits, petroleum naphtha, vm&p naphtha.
Aviation Fuels - includes Kerosene, Jet A and JP-4.
Other Oil - includes lubricating and cutting oil and silicon oil.

Factors such as microbial degradation, weathering and solubility generally prevent specific identification within a petroleum category. A finding of "unidentified" means that the sample fingerprint was characteristic of a petroleum product, but could not be matched to a fingerprint in the library.

After fingerprint identification, the amount present in the sample is quantified using a calibration curve prepared from a petroleum product of the same category as the identified petroleum. Unidentified petroleum is quantified using a petroleum calibration that approximates the distribution of compounds in the sample. A * in the results column indicates the petroleum calibration used to quantify unidentified samples.

SPECTRUM ANALYTICAL, INC.

Laboratory Report

Client ID: **ECS-DUP**
Lab ID No: **AB18568**

Location: **Country News Dist-Brattleboro**
Client Job No.: **40088**

Matrix: **Aqueous**
Sampled on09/17/98 by ECS
Received on 09/17/98 by DDR
QC and Data Review by AM

Preservative: Refrigeration, HCl
Container : 2 VOA Vials
Condition of Sample as Received: Satisfactory
Delivered by: Courier

Volatile Organics

EPA Method 8260

Parameter for AB18568	Result (ug/L)	MDL	Analyzed	Analyst
Benzene	520	2.5	10/01/98	CH
Bromobenzene	Not detected	2.5	10/01/98	CH
Bromochloromethane	Not detected	2.5	10/01/98	CH
Bromodichloromethane	Not detected	2.5	10/01/98	CH
Bromoform	Not detected	2.5	10/01/98	CH
Bromomethane	Not detected	2.5	10/01/98	CH
n-Butylbenzene	Not detected	2.5	10/01/98	CH
sec-Butylbenzene	Not detected	2.5	10/01/98	CH
tert-Butylbenzene	Not detected	2.5	10/01/98	CH
Carbon tetrachloride	Not detected	2.5	10/01/98	CH
Chlorobenzene	Not detected	2.5	10/01/98	CH
Chloroethane	Not detected	2.5	10/01/98	CH
Chloroform	Not detected	2.5	10/01/98	CH
Chloromethane	Not detected	2.5	10/01/98	CH
2-Chlorotoluene	Not detected	2.5	10/01/98	CH
4-Chlorotoluene	Not detected	2.5	10/01/98	CH
1,2-Dibromo-3-chloropropane	Not detected	2.5	10/01/98	CH
Dibromochloromethane	Not detected	2.5	10/01/98	CH
1,2-Dibromoethane (EDB)	Not detected	2.5	10/01/98	CH
Dibromomethane	Not detected	2.5	10/01/98	CH
1,2-Dichlorobenzene	Not detected	2.5	10/01/98	CH
1,3-Dichlorobenzene	Not detected	2.5	10/01/98	CH
1,4-Dichlorobenzene	Not detected	2.5	10/01/98	CH
Dichlorodifluoromethane	Not detected	2.5	10/01/98	CH
1,1-Dichloroethane	Not detected	2.5	10/01/98	CH
1,2-Dichloroethane	Not detected	2.5	10/01/98	CH
1,1-Dichloroethene	Not detected	2.5	10/01/98	CH
cis-1,2-Dichloroethene	Not detected	2.5	10/01/98	CH
trans-1,2-Dichloroethene	Not detected	2.5	10/01/98	CH
1,2-Dichloropropane	Not detected	2.5	10/01/98	CH
1,3-Dichloropropane	Not detected	2.5	10/01/98	CH
2,2-Dichloropropane	Not detected	2.5	10/01/98	CH
1,1-Dichloropropene	Not detected	2.5	10/01/98	CH
cis-1,3-Dichloropropene	Not detected	2.5	10/01/98	CH

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Volatile Organics
EPA Method 8260

Parameter for AB18568	Result (ug/L)	MDL	Analyzed	Analyst
trans-1,3-Dichloropropene	Not detected	2.5	10/01/98	CH
Ethylbenzene	62	2.5	10/01/98	CH
Hexachlorobutadiene	Not detected	2.5	10/01/98	CH
Isopropylbenzene	Not detected	2.5	10/01/98	CH
4-Isopropyltoluene	Not detected	2.5	10/01/98	CH
Methylene chloride	Not detected	2.5	10/01/98	CH
Naphthalene	Not detected	5.0	10/01/98	CH
n-Propylbenzene	Not detected	2.5	10/01/98	CH
Styrene	Not detected	2.5	10/01/98	CH
1,1,1,2-Tetrachloroethane	Not detected	2.5	10/01/98	CH
1,1,2,2-Tetrachloroethane	Not detected	2.5	10/01/98	CH
Tetrachloroethene	Not detected	2.5	10/01/98	CH
Toluene	1,000	2.5	10/01/98	CH
1,2,3-Trichlorobenzene	Not detected	2.5	10/01/98	CH
1,2,4-Trichlorobenzene	Not detected	2.5	10/01/98	CH
1,1,1-Trichloroethane	Not detected	2.5	10/01/98	CH
1,1,2-Trichloroethane	Not detected	2.5	10/01/98	CH
Trichloroethene	Not detected	2.5	10/01/98	CH
Trichlorofluoromethane	Not detected	2.5	10/01/98	CH
1,2,3-Trichloropropane	Not detected	2.5	10/01/98	CH
1,2,4-Trimethylbenzene	35	2.5	10/01/98	CH
1,3,5-Trimethylbenzene	14	2.5	10/01/98	CH
m,p-Xylenes	330	5.0	10/01/98	CH
o-Xylene	150	2.5	10/01/98	CH
Vinyl chloride	Not detected	2.5	10/01/98	CH
Methyl-t-butyl ether	150	2.5	10/01/98	CH
BFB Surrogate Recovery (%)	105		10/01/98	CH
p-DFB Surrogate Recovery (%)	94		10/01/98	CH
CLB-d5 Surrogate Recovery (%)	98		10/01/98	CH

SPECTRUM ANALYTICAL, INC.

Laboratory Report

Client ID: **ECS-DUP**
Lab ID No.: **AB18568**

Location: **Country News Dist-Brattleboro**
Client Job No.: **40088**

Matrix: Aqueous
Collected: 09/17/98 by ECS
Received on 09/17/98 by DDR
QC and Data Review by AM

Preservative: Refrigeration
Container: 1 Amber Glass Liter
Condition of Sample as Received: Satisfactory
Delivered by: Courier

Total Hydrocarbons by GC

Modified EPA Method 8100

Parameter	Result (mg/L)	MDL	Extracted	Analyzed	Analyst
Total Hydrocarbons (GC)	0.7		09/23/98	09/24/98	ATP
Fingerprint based quantification:					
Gasoline	**	0.2	09/23/98	09/24/98	ATP
Fuel Oil #2	*	0.4	09/23/98	09/24/98	ATP
Fuel Oil #4	Not detected	0.7	09/23/98	09/24/98	ATP
Fuel Oil #6	Not detected	0.7	09/23/98	09/24/98	ATP
Motor Oil	Not detected	0.7	09/23/98	09/24/98	ATP
Ligroin	Not detected	0.4	09/23/98	09/24/98	ATP
Aviation Fuel	Not detected	0.4	09/23/98	09/24/98	ATP
Other Oil	Not detected	0.7	09/23/98	09/24/98	ATP
Unidentified	0.7		09/23/98	09/24/98	ATP

Petroleum identification is determined by comparing the GC fingerprint obtained from the sample with a library of GC fingerprints obtained from petroleum products. Possible match categories are as follows;

Gasoline - includes regular, unleaded, premium, etc.
Fuel Oil #2 - includes home heating oil, #2 fuel oil and diesel.
Fuel Oil #4 - Includes #4 Fuel Oil.
Fuel Oil #6 - includes #6 oil and bunker "C" oil.
Motor Oil - includes virgin and waste automobile.
Ligroin - includes mineral spirits, petroleum naphtha, vm&p naphtha.
Aviation Fuels - includes Kerosene, Jet A and JP-4.
Other Oil - includes lubricating and cutting oil and silicon oil.

Factors such as microbial degradation, weathering and solubility generally prevent specific identification within a petroleum category. A finding of "unidentified" means that the sample fingerprint was characteristic of a petroleum product, but could not be matched to a fingerprint in the library.

After fingerprint identification, the amount present in the sample is quantified using a calibration curve prepared from a petroleum product of the same category as the identified petroleum. Unidentified petroleum is quantified using a petroleum calibration that approximates the distribution of compounds in the sample. A * in the results column indicates the petroleum calibration used to quantify unidentified samples.

SPECTRUM ANALYTICAL, INC.

Laboratory Report

Client ID: **ECS-TRIP**
Lab ID No: **AB18569**

Location: **Country News Dist-Brattleboro**
Client Job No.: **40088**

Matrix: **Aqueous**
Sampled on09/17/98 by ECS
Received on 09/17/98 by DDR
QC and Data Review by AM

Preservative: Refrigeration, HCl
Container : 1 VOA Vial
Condition of Sample as Received: Satisfactory
Delivered by: Courier

Volatile Organics

EPA Method 8260

Parameter for AB18569	Result (ug/L)	MDL	Analyzed	Analyst
Benzene	Not detected	1.0	10/01/98	CH
Bromobenzene	Not detected	1.0	10/01/98	CH
Bromochloromethane	Not detected	1.0	10/01/98	CH
Bromodichloromethane	Not detected	1.0	10/01/98	CH
Bromoform	Not detected	1.0	10/01/98	CH
Bromomethane	Not detected	1.0	10/01/98	CH
n-Butylbenzene	Not detected	1.0	10/01/98	CH
sec-Butylbenzene	Not detected	1.0	10/01/98	CH
tert-Butylbenzene	Not detected	1.0	10/01/98	CH
Carbon tetrachloride	Not detected	1.0	10/01/98	CH
Chlorobenzene	Not detected	1.0	10/01/98	CH
Chloroethane	Not detected	1.0	10/01/98	CH
Chloroform	Not detected	1.0	10/01/98	CH
Chloromethane	Not detected	1.0	10/01/98	CH
2-Chlorotoluene	Not detected	1.0	10/01/98	CH
4-Chlorotoluene	Not detected	1.0	10/01/98	CH
1,2-Dibromo-3-chloropropane	Not detected	1.0	10/01/98	CH
Dibromochloromethane	Not detected	1.0	10/01/98	CH
1,2-Dibromoethane (EDB)	Not detected	1.0	10/01/98	CH
Dibromomethane	Not detected	1.0	10/01/98	CH
1,2-Dichlorobenzene	Not detected	1.0	10/01/98	CH
1,3-Dichlorobenzene	Not detected	1.0	10/01/98	CH
1,4-Dichlorobenzene	Not detected	1.0	10/01/98	CH
Dichlorodifluoromethane	Not detected	1.0	10/01/98	CH
1,1-Dichloroethane	Not detected	1.0	10/01/98	CH
1,2-Dichloroethane	Not detected	1.0	10/01/98	CH
1,1-Dichloroethene	Not detected	1.0	10/01/98	CH
cis-1,2-Dichloroethene	Not detected	1.0	10/01/98	CH
trans-1,2-Dichloroethene	Not detected	1.0	10/01/98	CH
1,2-Dichloropropane	Not detected	1.0	10/01/98	CH
1,3-Dichloropropane	Not detected	1.0	10/01/98	CH
2,2-Dichloropropane	Not detected	1.0	10/01/98	CH
1,1-Dichloropropene	Not detected	1.0	10/01/98	CH
cis-1,3-Dichloropropene	Not detected	1.0	10/01/98	CH

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Volatile Organics
EPA Method 8260

Parameter for AB18569	Result (ug/L)	MDL	Analyzed	Analyst
trans-1,3-Dichloropropene	Not detected	1.0	10/01/98	CH
Ethylbenzene	Not detected	1.0	10/01/98	CH
Hexachlorobutadiene	Not detected	1.0	10/01/98	CH
Isopropylbenzene	Not detected	1.0	10/01/98	CH
4-Isopropyltoluene	Not detected	1.0	10/01/98	CH
Methylene chloride	Not detected	1.0	10/01/98	CH
Naphthalene	Not detected	2.5	10/01/98	CH
n-Propylbenzene	Not detected	1.0	10/01/98	CH
Styrene	Not detected	1.0	10/01/98	CH
1,1,1,2-Tetrachloroethane	Not detected	1.0	10/01/98	CH
1,1,2,2-Tetrachloroethane	Not detected	1.0	10/01/98	CH
Tetrachloroethene	Not detected	1.0	10/01/98	CH
Toluene	Not detected	1.0	10/01/98	CH
1,2,3-Trichlorobenzene	Not detected	1.0	10/01/98	CH
1,2,4-Trichlorobenzene	Not detected	1.0	10/01/98	CH
1,1,1-Trichloroethane	Not detected	1.0	10/01/98	CH
1,1,2-Trichloroethane	Not detected	1.0	10/01/98	CH
Trichloroethene	Not detected	1.0	10/01/98	CH
Trichlorofluoromethane	Not detected	1.0	10/01/98	CH
1,2,3-Trichloropropane	Not detected	1.0	10/01/98	CH
1,2,4-Trimethylbenzene	Not detected	1.0	10/01/98	CH
1,3,5-Trimethylbenzene	Not detected	1.0	10/01/98	CH
m,p-Xylenes	Not detected	2.0	10/01/98	CH
o-Xylene	Not detected	1.0	10/01/98	CH
Vinyl chloride	Not detected	1.0	10/01/98	CH
Methyl-t-butyl ether	Not detected	1.0	10/01/98	CH
BFB Surrogate Recovery (%)	96		10/01/98	CH
p-DFB Surrogate Recovery (%)	91		10/01/98	CH
CLB-d5 Surrogate Recovery (%)	89		10/01/98	CH

Spectrum Analytical, Inc.
Laboratory Report Supplement

References

Methods for the Determination of Organic Compounds in Drinking Water. EPA-600/4-88/039. EMSL 1988.

Methods for Chemical Analysis of Water and Wastes. EPA 600/4-79-020. EMSL 1983.

Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater. EPA 600/4-82-057. EMSL 1982.

Test Methods for Evaluating Solid Waste. Physical/Chemical Methods. EPA SW-846. 1986.

Standard Methods for the Examination of Water and Wastes. APHA-AWWA-WPCF. 16th Edition. 1985.

Standard Methods for Comparison of Waterborne Petroleum Oils by Gas Chromatography. ASTM D 3328. 1982.

Oil Spill Identification System. U.S. Coast Guard CG-D-52-77. 1977.

Handbook for Analytical Quality Control in Water and Wastewater Laboratories. EPA 600/4-79-019. EMSL 1979.

Choosing Cost-Effective QA/QC (Quality Assurance/Quality Control) Programs for Chemical Anslyses. EPA 600/4-85/056. EMSL 1985.

Report Notations

Not Detected, Not Det, ND or nd	=	*The compound was not detected at a concentration equal to or above the established method detection limit.*	
NC	=	*Not Calculated*	
MCL	=	*EPA Maximum Contamination Level*	
VOA	=	*Volatile Organic Analysis*	
BFB	=	*4-Bromofluorobenzene*	*(An EPA 624 Surrogate)*
p-DFB	=	*1,4-Difluorobenzene*	*(An EPA 624 Surrogate)*
CLB-d5	=	*Chlorobenzene-d5*	*(An EPA 624 Surrogate)*
BCP	=	*2-Bromo-1-chloropropane*	*(An EPA 601 Surrogate)*
TFT	=	*a,a,a-Trifluorotoluene*	*(An EPA 602 Surrogate)*
Decachlorobiphenyl	=	*(an EPA 608/8080 Surrogate)*	

Definitions

Surrogate Recovery = The recovery (expressed as a percent) of a non-method analyte (see surrogates listed above) added to the sample for the purpose of monitoring system performance.

Matrix Spike Recovery = The recovery (expressed as a percent) of method analytes added to the sample for the purpose of determining any effect of sample composition on analyte recovery.

Laboratory Replicate = Two sample aliquots taken in the analytical laboratory and analyzed separately with identical procedures. Analyses of laboratory duplicates give a measure of the preceision associated with laboratory procedures, but not with sample collection, preservation, or storage procedures.

Field Duplicate = Two separate samples collected at the same time and place under identifical circumstances and treated exactly the same throughout field and laboratory procedures. Analysis of Field duplicates give a measure of the precision associated with sample collection, preservaton and storage, as well as with laboratory procedures.

Relative Percent Difference (% RPD) = The precision measurement obtained on duplicate/replicate analyses. %RPD is calculated as:

$$\%RPD = \frac{(value1 - value2)}{ave.\ value} * 100\%$$

CHAIN OF CUSTODY RECORD

SPECTRUM ANALYTICAL

Page 1 of 1

PROJECT NO.: 40088	**REPORT TO:**
SITE NAME: Country News Dist.	ECS-VT
LOCATION: Brattleboro STATE VT	ADDRESS:
REFERENCE QUOTE NUMBER (RQN):	CITY STATE ZIP
PURCHASE ORDER NO.:	**INVOICE TO:**
PROJECT Mgr: DCB	ECS-MA
SAMPLER(s): AJM	CITY STATE ZIP

SAMPLE TYPE & MATRIX CODES:

1 = 4°C 2 = HCl 3 = H_2SO_4 4 = HNO_3 5 = OTHER ______

C = COMPOSITE G = GRAB

1 = AQUEOUS 2 = SOIL 3 = SLUDGE 4 = SEDIMENT 5 = OTHER ______

LAB USE ONLY	SAMPLE I.D.	DATE	TIME	MATRIX	SAMPLE TYPE	PRESERVATIVE	# 40 ml VOA VIALS	# OF AMBER GLASS LITERS	# OF PLASTIC LITERS	# OF GLASS SOIL JARS		1-601/8010 2-602/8020	1-502/8021 2-524	1-624/8240 2-8260	1-MTBE 2-KETONES	1-8270 2-BN 3-PAHS	1-PCBS 2-PEST (608/8080)	1-GC(8100M) 2-GC(8015M)	1-VPH 2-EPH 3-ID	1-IR(418.1) 2-OIL/GREASE	PP13	RCRA8	As, Cd, Cr, Hg, Pb		1-PH 2-FLASH 3-REACT		
AA 18566	ECS-4	9/17		1	G	12	2	1						2				1									
AA 18567	ECS-~~6~~5 (AM)	↓		1	G	12	2	1						2				1									
AA 18568	ECS-DUP			1	G	12	2	1						2				1									
AA 18569	ECS-TRIP	↓		1	G	12	1							2													
AA																											
AA																											
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Column groups: CONTAINERS; VOC's; SVOC's; TPH; METALS (1 - Soluble, 2 - Total, 3 - TCLP); OTHER

RELINQUISHED BY:	RECEIVED BY:	DATE	TIME
[signature]	E. [signature]	9-17-98	14:00
E. [signature]	[signature]	9-17-98	16:00

SPECIAL INSTRUCTIONS: per fax from Dave Pull, change ECS-6 to ECS-5; (AM) 11/30

☐ Fax results when available to (______) ______

SPECIAL HANDLING: *Please check*

- ☐ Return Sample after Analysis
- ☐ Dispose of Sample after 60 days
- ☐ Standard TAT - 7 to 10 Business days
- ☐ Special TAT - 24 hr - 48 hr - 72 hr - 5 b. days
- • TAT begins when sample is received at test facility.
- • TAT for samples rec'd after 3 pm will begin on the next business day.
- • All TAT's are subject to laboratory approval and customer consent.

DATE RESULTS NEEDED: ______